

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

|  |   |                |
|--|---|----------------|
| CLASSIFICATION TITLE                         | OFFICE/BRANCH/SECTION                     |                |
| Research Program Specialist II (GIS) Systems | District 4 Right of Way Land Surveys- GIS |                |
| WORKING TITLE                                | POSITION NUMBER                           | EFFECTIVE DATE |
| Research Program Specialist II               | 904-403-7419-XXX                          | 03/01/2015     |

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

**GENERAL STATEMENT:**

Under the supervision of a Senior Transportation Surveyor in the Office of Right of Way Engineering, the incumbent serves as a principal District staff person possessing expert knowledge in the techniques and methodologies utilized in Geographic Information Systems. In an expert capacity, the incumbent will perform complex research involving geospatial analysis and geospatial database management in support of the Right of Way Records & GIS Branch's responsibilities to provide analytical data and mapping using GIS and CADD applications for various Caltrans project development, asset management, and information delivery needs. The incumbent will design and test complex spatial databases to provide data for District project delivery and Departmental program operation, policy analysis, and will work cooperatively with and instruct other professionals concerned with Geographic Information Systems and other advanced digital mapping and database management techniques.

**TYPICAL DUTIES:**

| Percentage                              | Job Description  |
|---|--|
| Essential (E)/Marginal (M) <sup>1</sup> |  |
| 40% E                                   | Incumbent performs expert level GIS-based analysis and research to support District 4 Division of Right of Way capital project development and asset management activities. Work includes the development and use of geospatial data, imagery, applications, tools, and models for complex analysis, project delivery and asset management needs. Incumbent identifies spatial data and application needs for complex analyses, assesses the adequacy of existing data and applications to meet these needs, and investigates innovative data/technology based solutions. Incumbent designs, develops and maintains geospatial databases and services from Department geospatial, project management and asset management databases and other sources. |
| 35% E                                   | Incumbent designs and develops intranet/internet-based mapping applications using ArcGIS for Server and various standard development tools including Python, Silverlight, JavaScript/HTML5, ArcGIS.com and/or other open source web mapping applications to enhance the Division's information sharing and interactive mapping capabilities.   |
| 15% E                                   | Incumbent mentors branch staff by providing coaching and end-user technical support on GIS principles, software applications, procedures, and advanced digital mapping and database management techniques. Incumbent provides ArcGIS desktop and GIS tool training specific to Caltrans data and participates in outreach to identify user needs. The incumbent engages in partnership activities with other Caltrans District 4 Divisions, local government agencies and other partners related to the development of geospatial data and products.   |
| 10% M                                   | Prepare reports and correspondence; attends and participates in communications with staff and supervisors as needed at a level required for successful job performance in a timely manner.   |

<sup>1</sup> ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

The incumbent works under the general supervision of a Senior Transportation Surveyor (Branch Chief). The incumbent may also serve in a lead capacity. This position does not supervise other employees.

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### KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The position requires the ability to independently and successfully perform complex research and analysis projects involving various types of digital spatial data, techniques, and methodologies associated with Geographic Information Systems. The position also requires the ability to work cooperatively and effectively with others. The position requires general understanding of basic research and statistical methods, and the ability to synthesize data from a variety of disciplines. The work is complex, frequently requiring initiative, flexibility, and organizational skills.

A RPS (GIS) must have a good knowledge of GIS techniques and methodologies to develop data, tools, and models. The RPS (GIS) must also have a good understanding of cartographic principles as applied to GIS products and delivery. The following are the knowledge, abilities, and analytical requirements necessary for this position:

- Experience with Environmental Systems Research Institute, Inc. (ESRI) enterprise and desktop GIS software products;
- Communicate effectively at a level required for successful job performance;
- Interact in a professional manner with all levels of department staff;
- Compiles, makes, or revises geospatial products, maps, charts, and diagrams;
- Uses project management systems to assist the unit supervisor in budgeting and setting delivery milestones for projects;
- Exercises good judgment in providing assistance, consultation, and communication with all levels of departmental staff and management, including external entities such as consultants or vendors;
- Assists in mentoring other staff who may be less knowledgeable or less experienced in GIS technology;
- Advanced knowledge of GIS software and strong familiarity with relational database design as it applies to GIS software;
- In-depth knowledge of cartographic principles, spatial analysis, and databases;
- Proven experience in data modeling;
- Analyze situations accurately and take effective action;
- Demonstrated ability to train team members and end users on GIS data and applications;
- Ability to conduct research into GIS issues and products as required;
- Prepare reports;
- Understand and practice current Safety procedures as described in the Code of Safe Surveying Practices and the Caltrans Illness and Injury Prevention Program;
- Recognize and immediately report any possible hazards or safety violation that may adversely affect property, employees, or the general public.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The RPS (GIS) is responsible for assisting the supervisor in an office setting. Errors in judgment or decisions could affect public safety or result in tort liability for the Department. Inaccurate, delayed or incomplete reports and correspondence may result in added costs due to higher bid estimates or changes. The effects of poor decisions relating to any of these items could translate into additional delays, costs, or claims against the State of California.

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### PUBLIC AND INTERNAL CONTACTS

The incumbent has frequent contact with employees in various branches of the District and Caltrans Headquarters. In addition, the incumbent actively coordinates with the general public, consultants and representatives of other public agencies, for data gathering, information giving, and coordination.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for long periods of time using a keyboard and video display terminal. Some bending, stooping, kneeling and light lifting is required to operate specialized equipment used for data gathering. Also, the incumbent must have the ability to develop and maintain cooperative working relationships within the branch, and respond appropriately to difficult questions and situations.

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### WORK ENVIRONMENT

The incumbent works primarily in a climate controlled office environment under artificial and natural lighting. On occasion the incumbent will be required to travel, gather field data, and be exposed to traffic conditions in the field.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation

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Coordinator.)

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EMPLOYEE (Print)

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EMPLOYEE (Signature)

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DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

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DATE

**HIRING CONSIDERATIONS FORM**

PM-1006 (REV 10/2014)

|                   |  |   |                              |
|-------------------|--|---|------------------------------|
| NO<br>i<br>C<br>S | PARF NUMBER<br>5-0704                              | FUNDING SOURCE (Fund Number/Name)           |                              |
|                   | CURRENT POSITION NUMBER<br>403-3029                | TOTAL NUMBER OF POSITIONS IN DIVISION<br>30 |                              |
|                   | PROPOSED POSITION NUMBER<br>403-5857               | TOTAL NUMBER OF POSITIONS IN UNIT<br>7      |                              |
|                   | DISTRICT / DIVISION<br>04 Division of Right of Way | PROGRAM                                     |                              |
|                   | FORM COMPLETED BY<br>Toni Scorallo                 | E-MAIL<br>Toni_Scoralle@dot.ca.gov          | PHONE NUMBER<br>510-286-5402 |

**NOTE:** It is important the information in this section is clear, concise, and complete. If there is incomplete information, delays will occur.

When, where, and why did this vacancy occur?

|                   |   |
|-------------------|---|
| NO<br>i<br>C<br>S | Right of Way Records Branch, March 2015. The position was held by Transportation Surveyor, who transferred to another Branch. |
|                   |   |

Have organizational duties been explored in the District/Program/Division/Branch that provide more capacity from existing staff to accommodate tasks and/or responsibilities for this position?

|                   |  |
|-------------------|--|
| NO<br>i<br>C<br>S | GIS is relatively new innovation to Caltrans, therefore not a big candidate pool of knowledgeable folks within the Department. |
|                   |  |

Is this a new position, backfill or is the position being reclassified? If the vacancy is being reclassified, state the reasons why. Is this position temporary?

|                   |                                    |
|-------------------|------------------------------------|
| NO<br>i<br>C<br>S | Reclass of Transportation Surveyor |
|                   |                                    |

If this is a reclassification, provide a summary of changes to current duties. How will former duties be addressed?

|                   |  |
|-------------------|--|
| NO<br>i<br>C<br>S | The Right of Way Records Branch' role has significantly improved with the use of GIS ( Geospatial Information Systems). The Branch has moved to an online records request website, and functions more efficiently. The Records Branch has typically hired Transportation Surveyors or Transportation Engineering Technicians, with the process moving to GIS, we want to incorporate a small staff who's duties are analyzing and predicting function needs. |
|                   |  |

Has DHR been consulted regarding the proper classification for the level of complexity and sensitivity of this position?

|                   |      |
|-------------------|------|
| NO<br>i<br>C<br>S | Yes. |
|                   |      |

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Have there been any supervisory or organizational changes impacting this position?

No

CO  
CO

What is the impact of not filling this position? Have alternatives been considered?

*If district/program/division is overstaffed in this classification, explain how overstaffing will be addressed.*

Puts undo stress on existing staff. Experienced staff could solve a problem in a day, existing staff might take days/monthsto figure it out.

Is this position sustainable? Can this hire be fully funded with existing allocations and will the District/Program have the capacity to fund in future years?

Yes

CO  
CO

ADDITIONAL INFORMATION / COMMENTS (e.g. special circumstances, etc.):

CO  
CO

Submitted By: (Print Name):

Date:

Manager Approval (Signature):

Date:

Division Chief/Deputy Approval (Signature):

Date:

**DHR USE ONLY**

HR Analyst Approval:

Date:

HR Office Chief Approval:

Date:

HR Division Chief Approval:

Date: